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Test Report of Physical Properties of Cement-53 Grade

IS: 12269-2013, IS: 4031(Part-1,2,3,4,5,6,11)-1988	Date:	05-11-2021

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Birla Super 53-Grade
Date of Test	05-11-2021
Environmental Condition during test	Temperature: 26°C
	Humidity: 72%

Test Results

SL No	Physical Properties	Result	Requirements as per IS: 12269-2013
1	Finess by dry sieving (%)	1.95	-
2	Finess by Air permiability method (m^2/kg, Min)	285.4	225 m2
3	Density, (gm/cm)	3.12	-
4	Standard Consistency (%)	29.50%	Not Specified
5	Initial Setting time	145 Minutes	Not less than 30 minutes
6	Final Setting Time	240 Minutes	Not more than 15 minutes
7	Soudness (Le Chateliers Method)	1.5 mm	Not more than 10 mm

Remarks :

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Test Report of Physical Properties of Cement-53 Grade

IS: 12269-2013, IS: 4031(Part-4,6)-1988	Date:	05-11-2021

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Birla Super 53-Grade
Date of Test	05-11-2021
Environmental Condition during test	Temperature: 26°C
	Humidity: 72%

Compressive Strength

Sl. No	Physical Properties	Result	Requirements as per IS: 12269-2013
1	3 Days	28.5 N/mm^2	Not less than 27 N/mm2
2	7 Days	39.0 N/mm^2	Not less than 37 N/mm2
3	28 Days	58.5 N/mm^2	Not less than 53 N/mm2

Remarks :

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Test Report of Fine Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012) Date: 05-11-2021

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Fine Aggregate
Date of Test	05-11-2021

Total wt of the sample (gms):			1000					
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per IS: 383-2016			
					Grading Zone-1	Grading Zone-2	Grading Zone-3	Grading Zone-4
10	0	0	0.0	100	100	100	100	100
4.75	27	27	2.7	97.3	90-100	90-100	90-100	95-100
2.36	55	82	8.2	91.8	60-95	75-100	85-100	95-100
1.18	239	321	32.1	67.9	30-70	55-90	75-100	90100
600	205	526	52.6	47.4	15-34	35-59	60-79	80-100
300	203	729	72.9	27.1	5-20	8-30	12-40	15-50
150	191	920	92.0	8.0	0-10	0-10	0-10	0-15
PAN	80	1000	100.0	0.0	-	-	-	-

Result: The Tested Sample Conforms to Grading Zone-II

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Test Report of Fine Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012)	Date:	05-11-2021

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Fine Aggregate
Date of Test	05-11-2021

Physical Properties

Sl. No	Physical Properties	Result	Requirements as per IS: 386-2016
1	Water Absorption (%)	1.50	-
2	Specific Gravity	2.59	-
3	Material Finer tha 75 micron (%)	6.90	Uncrushed fine Aggregate Max 3% Crushed Fine Aggregate Max 15% Mixed Fine Aggregate Max 12% Manufacture Fine Aggregate Max 10%

Remarks :

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Test Report of Coarse Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3 & 4)-1963 (Reaffirmed-2012)	Date:	15-02-2022

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate
Date of Test	15-02-2022

Sieve Analysis (Particle Size Distribution) of 20mm Down Coarse Aggregate

Total wt of the sample (gms):			5000		
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per IS: 383-2016
40	0	0	0.0	100	100
20	245	245	4.9	95.1	90-100
10	2560	2805	56.1	43.9	20-55
4.75	2033	4838	96.8	3.2	0-10
PAN	162	5000	100.0	0.0	-

Remarks :

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Test Report of Fine Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012)	Date:	15-02-2022

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate
Date of Test	15-02-2022

Physical Properties

Sl. No	Physical Properties	Result	Requirements as per IS: 386-2016
1	Flakines Index (%)	13.20	Combined Flakiness and Elongation Index ahall nor exceed 40% for uncrushed and crushed aggregate
2	Elongation Index (%)	12.6	
3	Specific Gravity	2.66	-
4	Bulk Density (Loose) (Kg/l)	1.54	-
5	Bulk Density (Composed) (Kg/l)	1.58	-
6	Water Absorption (%)	0.22	-
7	Aggregate Crushing Value (%)	24.50	Max 30% for Aggregates to be used in concrete for wearing surfaces, In case aggregate Crushing Value exceeds 30% then the test for 10% fines should be conducted for aggregate to be used in concrete oter tha for wearing surfaces
8	Aggregate Impact Value (%)	22.80	Max 30% for aggregate to be used in concrete for wearing surfaces, 45% for aggregate to be used in concrete other than for wearing surface.

Remarks :

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Test Report of Coarse Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3 & 4)-1963 (Reaffirmed-2012)	Date:	15-02-2022

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate
Date of Test	15-02-2022

Sieve Analysis (Particle Size Distribution) of 40mm Down Coarse Aggregate

Total wt of the sample (gms):			15000		
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per IS: 383-2016
80	0	0	0	100	100
40	244	244	1.6	98.4	90-100
20	5432	5676	37.8	62.2	30-70
10	4332	10008	66.7	33.3	10-35
4.75	4654	14662	97.7	2.3	0-5
PAN	338	15000	100.0	0.0	-

Remarks :

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Test Report of Fine Aggregate

IS: 383-2016, IS: 2386 (Part-1, 3)-1963 (Reaffirmed-2012)	Date:	15-02-2022

Name of Work : Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar Cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Sample Type	Coarse Aggregate
Date of Test	15-02-2022

Physical Properties

Sl. No	Physical Properties	Result	Requirements as per IS: 386-2016
1	Flakines Index (%)	12.40	Combined Flakiness and Elongation Index ahall nor exceed 40% for uncrushed and crushed aggregate
2	Elongation Index (%)	11.8	
3	Specific Gravity	2.68	-
4	Bulk Density (Loose) (Kg/l)	1.48	-
5	Bulk Density (Composed) (Kg/l)	1.52	-
6	Water Absorption (%)	0.22	-

Remarks :

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EE (Project) Ynk Zone/WO/163/2019-20 **Date: 05-11-2021**

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10 & 8 mm (Culvert 10&16mm) **TMT Steel.**

{Project*: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. V Chandrappa No.681, Dasarahalli, Hebbal Post, Bangalore-24.

TABLE – 1

SL No	Details	For 8 mm		For 10 mm	
		Test Results	Min Req. as per IS 1786-2008	**Test Results**	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**8.0 mm**	8.0 mm	**10.0 mm**	10.0 mm
02	Observed Wt/m Length **Kg/m**	**0.393**	0.363	**0.621**	0.567
03	Proof stress/Yield stress, fy , **N/mm²**	**560.0**	500.0	**556.0**	500.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**19.50**	16.00	**20.80**	16.00
06	Ultimate Tensile Strength **N/mm²**	**649.0**	565.0	**645.0**	565.0

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TABLE – 2

SL No	Details	For 10 mm		For 16 mm	
		Test Results	Min Req. as per IS 1786-2008	**Test Results**	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**10.0 mm**	10.0 mm	**10.0 mm**	10.0 mm
02	Observed Wt/m Length **Kg/m**	**0.621**	0.567	**1.57**	0.567
03	Proof stress/Yield stress, fy , **N/mm²**	**556.0**	500.0	**556.0**	500.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**20.80**	16.00	**20.80**	16.00
06	Ultimate Tensile Strength **N/mm²**	**645.0**	565.0	**645.0**	565.0

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Test Result of Field Density Test

IS:2720 (Part-28) | Date: 09-06-2022

Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06

Client		Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.					
Contractor		Sri. V Chandrappa					
Customer Reference		EE(PROJECT)/YNK ZONE/WO/163/2019-20					
Source of Sample		Sample supplied by Agency					
Sample Type		Soil Field Density Test (FDD)					
Date of Test		09-06-2022					
MDD (gm/cc)		1.785					
OMC (%)		10.4					
Field Density		Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Weight of soil from hole (Ww)	gm	11211	11336	11891	11696	11781	11631
Weight of Sand + Cylinder (W1)	gm	30000	30000	30000	30000	30000	30000
Weight of Sand + Cylinder after pouring (W2)	gm	19521	19436	19131	19171	19196	19306
Weight of Sand in Cone (W3)	gm	2257	2257	2257	2257	2257	2257
Weight of Sand in hole (W_b = W1-W2-W3)	gm	8222	8307	8612	8572	8547	8437
Unit Weight of Sand (Gs)	gm/cc	1.321	1.321	1.321	1.321	1.321	1.321
Volume of the hole (v)=Wb/Gs	cc	6224.07	6288.42	6519.30	6489.02	6470.10	6386.83
Bulk Density of Soil $\gamma = Ww / v$	gm/cc	1.80	1.80	1.82	1.80	1.82	1.82
Moisture content by RMM	%	10.5	9.66	10.4	10	10.73	10.7
Dry density of soil $\gamma_d = \{g /(1 + w / 100)\}$	gm/cc	1.63	1.64	1.65	1.64	1.64	1.65
Relative Compaction	%	0.9132	0.9209	0.9256	0.9180	0.9212	0.9216
% of Compaction required	%	0.920					
Remarks:							

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Test Result of Field Density Test

IS:2720 (Part-28)					Date:	09-06-2022	
Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06							
Client		Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.					
Contractor		Sri. V Chandrappa					
Customer Reference		EE(PROJECT)/YNK ZONE/WO/163/2019-20					
Source of Sample		Sample supplied by Agency					
Sample Type		Soil Field Density Test (FDD)					
Date of Test		09-06-2022					
MDD (gm/cc)		1.785					
OMC (%)		10.4					
Field Density		Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Weight of soil from hole (Ww)	gm	11156	11281	11836	11641	11726	11576
Weight of Sand + Cylinder (W1)	gm	30000	30000	30000	30000	30000	30000
Weight of Sand + Cylinder after pouring (W2)	gm	19452	19367	19062	19102	19127	19237
Weight of Sand in Cone (W3)	gm	2257	2257	2257	2257	2257	2257
Weight of Sand in hole (W_b = W1-W2-W3)	gm	8291	8376	8681	8641	8616	8506
Unit Weight of Sand (Gs)	gm/cc	1.321	1.321	1.321	1.321	1.321	1.321
Volume of the hole (v)=Wb/Gs	cc	6276.31	6340.65	6571.54	6541.26	6522.33	6439.06
Bulk Density of Soil $\gamma = Ww / v$	gm/cc	1.78	1.78	1.80	1.78	1.80	1.80
Moisture content by RMM	%	10.2	9.8	10.6	10.2	10.5	10.8
Dry density of soil $\gamma_d = \{g /(1 + w / 100)\}$	gm/cc	1.61	1.62	1.63	1.61	1.63	1.62
Relative Compaction	%	0.9036	0.9078	0.9123	0.9047	0.9115	0.9090
% of Compaction required	%	0.908					
Remarks:							

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Test Result of Field Density Test

IS:2720 (Part-28)					Date:	09-06-2022	
Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06							
Client		Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.					
Contractor		Sri. V Chandrappa					
Customer Reference		EE(PROJECT)/YNK ZONE/WO/163/2019-20					
Source of Sample		Sample supplied by Agency					
Sample Type		Soil Field Density Test (FDD)					
Date of Test		09-06-2022					
MDD (gm/cc)		1.785					
OMC (%)		10.4					
Field Density		Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Weight of soil from hole (Ww)	gm	11201	11326	11881	11686	11771	11621
Weight of Sand + Cylinder (W1)	gm	30000	30000	30000	30000	30000	30000
Weight of Sand + Cylinder after pouring (W2)	gm	19499	19414	19109	19149	19174	19284
Weight of Sand in Cone (W3)	gm	2257	2257	2257	2257	2257	2257
Weight of Sand in hole (W_b = W1-W2-W3)	gm	8244	8329	8634	8594	8569	8459
Unit Weight of Sand (Gs)	gm/cc	1.321	1.321	1.321	1.321	1.321	1.321
Volume of the hole (v)=Wb/Gs	cc	6240.73	6305.07	6535.96	6505.68	6486.75	6403.48
Bulk Density of Soil $\gamma = Ww / v$	gm/cc	1.79	1.80	1.82	1.80	1.81	1.81
Moisture content by RMM	%	10.5	9.66	10.4	9.66	10.7	10.4
Dry density of soil $\gamma_d = \{g /(1 + w / 100)\}$	gm/cc	1.62	1.64	1.65	1.64	1.64	1.64
Relative Compaction	%	0.9100	0.9177	0.9224	0.9177	0.9183	0.9209
% of Compaction required	%	0.918					
Remarks:							

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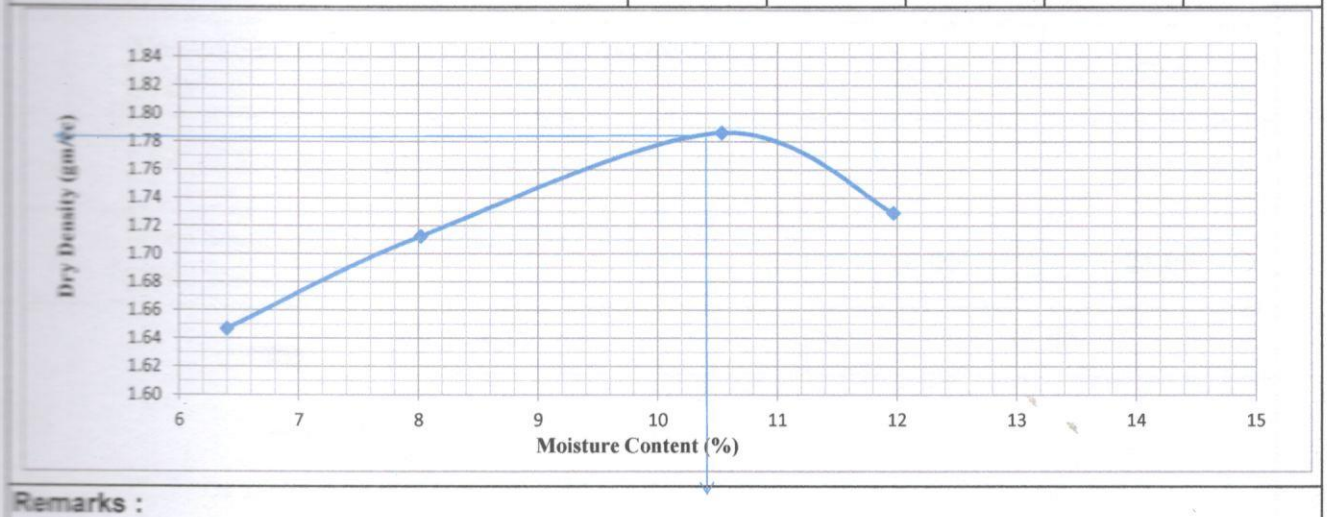
Wt. Sample Taken :	5 Kg				
Determination No	1	2	3	4	
No. of Blows	6	8	10	12	
No. of Layers	3	3	3	3	
Volume of mould (V) cc	2250.63	2250.63	2250.63	2250.63	
Mass of mould (M1) gm	5740	5740	5740	5740	
Mass of mould+Compacted soil (M2) gm	9684	9904	10184	10098	
Mass of Compacted soil(M3=M2-M1) gm	3944	4164	4444	4358	
Wet Density of soil (γ_w)=M3/V gm/cc	1.752	1.850	1.975	1.936	
Container No.	S125	S126	S127	S128	
Mass of Container (gm)	32.72	30.89	32.23	30.30	
Mass of Wet Soil+Container (gm)	105.23	109.55	111.24	120.21	
Mass of Oven Dry Soil + Container (gm)	100.87	103.71	103.71	110.6	
Mass of Water (gm)	4.36	5.84	7.53	9.61	
Weight of dry soil (gm)	68.15	72.82	71.48	80.30	
Water Content (%)	6.40	8.02	10.53	11.97	
Dry Density of Soil (γ_d)=γ_w/(1+w%) gm/cc	1.647	1.713	1.786	1.729	



Remarks :

From Graph		
Maximum Dry Density (MDD)	1.785	gm/cc
Optimum Moisture Content (OMC)	10.40	%

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Test Result of Free Swell Index

(IS : 2720 , Part-40) Date: 07-11-2021

Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Type	Soil-Free Swell Index
Date of Test	07-11-2021

S.No.	Description of Test	Readings	
1	Vol. of Soil Specimen in Distilled Water in cc (Vd)	11.8	12.1
2	Vol. of Soil Specimen in Kerosene in cc (Vk)	10	10
3	Free Swell Index in Percentage ((Vd - Vk) / Vk) x 100	18.00	21.00
	AVG (%)	19.50	

Note :

1. Take 10gm of each sample.

Remarks :

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Test Result of Free Swell Index

(IS : 2720 , Part-40) Date: 07-11-2021

Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Type	Soil-Free Swell Index
Date of Test	07-11-2021

S.No.	Description of Test	Readings	
1	Vol. of Soil Specimen in Distilled Water in cc (Vd)	11.8	12.1
2	Vol. of Soil Specimen in Kerosene in cc (Vk)	10	10
3	Free Swell Index in Percentage ((Vd - Vk) / Vk) x 100	18.00	21.00
	AVG (%)	19.50	

Note :

1. Take 10gm of each sample.

Remarks :

Asst. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

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Test Result of Atterberg Limits

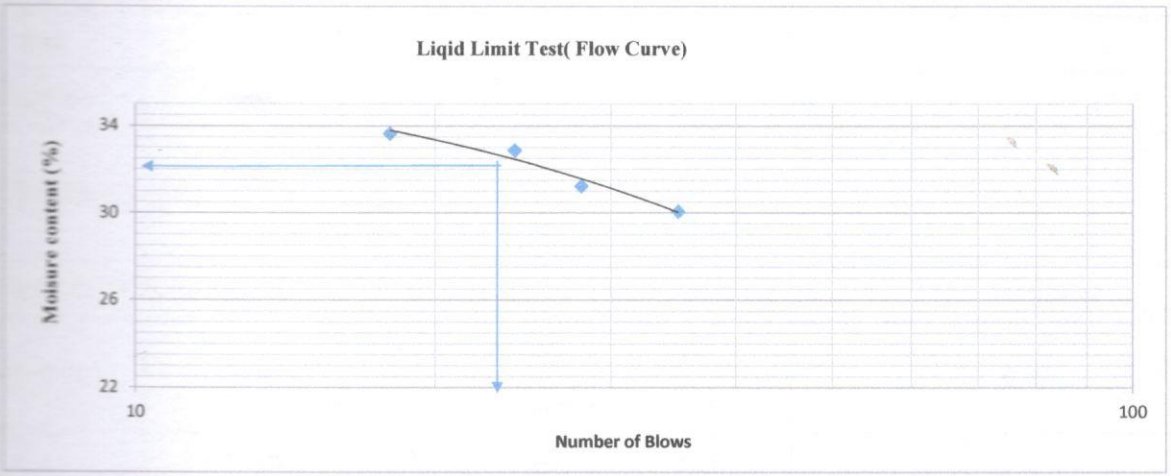
(As : 2720 Part - 5)

Date: 07-11-2021

Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Reference	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sample	Sample supplied by Agency
Sample Type	Soil-Atterberg Limits
Date of Test	07-11-2021

	Determination No.	Liquid Limit				Plastic Limit	
		1	2	3	4	1	2
1	No Of Blows	18	24	28	35		
2	Container No.	S119	S120	S121	S122	S123	S124
3	Mass of Container (gm)	30.07	32.39	31.73	31.57	30.58	31.79
4	Mass of Wet Soil + Container (gm)	56.87	57.04	55.17	56.96	43.94	41.14
5	Mass of oven Dry Soil + Container (gm)	50.12	50.94	49.59	51.09	42.34	40.09
6	Mass of Water=(4-5) (gm)	6.75	6.10	5.58	5.87	1.60	1.05
7	Mass of oven dry soil =(5-3) (gm)	20.05	18.55	17.86	19.52	11.76	8.30
8	Water Content (w=6/7*100) (%)	33.67	32.88	31.24	30.07	13.61	12.65



Liquid Limit : Moisture Content at 25 Blows

Liquid Limit	32.24	%
Plastic Limit	13.13	%
Plasticity Index	19.11	%

Remarks :

AARTN ASSOCIATES DATE BANGALORE

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Project Division
Yelahanka Zone

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Test Result of Grain Size Analysis

(IS : 2720 Part -4)

Date: 07-11-2021

Name Of Work: Comprehensive Development of Hegdenagar East Side cross roads and Shabarinagar cross road in Ward No.06

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri. V Chandrappa
Customer Refe	EE(PROJECT)/YNK ZONE/WO/163/2019-20
Source of Sam	Sample supplied by Agency
Sample Type	Soil-Grain Size Analysis
Date of Test	07-11-2021

Weight before wash (gm) : 1000 Weight after wash (gm) :

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative (%) of Retained (gm)	Cumulative (%) of Passing (gm)	Remarks
75 mm	0	0	0	100	
20 mm	0	0	0	100	
4.75 mm	6.7	6.7	0.67	99.33	
2 mm	119.54	126.24	12.62	87.38	
425 m	204.5	330.74	33.07	66.93	
75 m	185.54	516.28	51.63	48.37	
Pan					
TOTAL					

OBSERVATION SHEET

DESCRIPTION PARTICAL		SIEVE SIZE	PERCENTAGE	Total %
Gravel	Coarse	75 mm - 20 mm	0.00	0.67
	Fine	20 mm - 4.75 mm	0.67	
Sand	Coarse	4.75 mm - 2 mm	11.95	50.96
	Medium	2 mm - 0.425 mm	13.23	
	Fine	0.425 mm - 0.075 mm	28.25	
Silt & Clay		0.075 mm Passing	48.37	48.37

Remarks :

Asst. Executive Engineer
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